What is claimed is:

1. A method for compensating for ambient light that may reach a photodetector system of an optical sensor having indicator molecules, comprising:

illuminating the indicator molecules, thereby causing the indicator molecules to emit light;

determining the amount of light reaching the photodetector system at a point in time when the indicator molecules are illuminated, thereby determining the sum of the amount of ambient light and the light emitted from the indicator molecules reaching the photodetector;

ceasing illuminating the indicator molecules;

after ceasing illuminating the indicator molecules, determining the amount of light reaching the photodetector system, thereby determining the amount of ambient light reaching the photodetector; and

determining the amount of light emitted from the indicator molecules that reached the photodetector system by subtracting the second determined amount of light from the first determined amount of light.

2. The method of claim 1, further comprising transmitting signals to a sensor reader, wherein each signals contains information corresponding to an output of the photodetector system.

3. The method of claim 1, wherein the step of

determining the amount of light emitted from the indicator molecules that reached the photodetector system by subtracting the second determined amount of light from the first determined amount of light is performed by an external sensor reader.

4. The method of claim 1, wherein the step of illuminating the indicator molecules comprises activating a light source.

5. The method of claim 4, wherein the step of activating the light source comprises driving the light source with about 2 milliamps of current.

6. The method of claim 1, wherein the step of determining the amount of light reaching the photodetector consists of obtaining a signal output from the photodetector system.

7. A method for compensating for ambient light that may reach a photodetector system of an optical sensor having indicator molecules, comprising:

(a) illuminating the indicator molecules;

(b) capturing a first signal output from the photodetector system, wherein said first signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the photodetector system;

(c) after performing step (b) and while the indicator molecules are not being illuminated,

capturing a second signal output from the photodetector system, wherein said second signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the photodetector system; and

(d) generating a third signal, wherein the third signal is a function of the first and second signal.

8. The method of claim 7, further comprising transmitting the first and second signal to a sensor reader.

9. The method of claim 8, wherein the sensor reader generates the third signal.

10. The method of claim 7, wherein the step of generating the third signal comprises subtracting the second signal from the first signal.

11. The method of claim 7, wherein the step of illuminating the indicator molecules comprises activating a light source.

12. The method of claim 11, wherein the step of activating the light source comprises driving the light source with about 2 milliamps of current.

13. An optical sensor, comprising:

indicator molecules;

a photodetector;

a light source for illuminating the indicator molecules;

means for determining the amount of light reaching the photodetector at a point in time when the indicator molecules are illuminated by the light source, thereby determining the sum of the amount of ambient light and the light emitted from the indicator molecules reaching the photodetector; and

means for determining the amount of light reaching the photodetector at a point in time when the indicator molecules are not being illuminated by the light source, thereby determining the amount of ambient light reaching the photodetector.

14. The optical sensor of claim 13, further comprising means for determining the amount of light emitted from the indicator molecules that reached the photodetector.

15. The optical sensor of claim 14, wherein said means for determining the amount of light emitted from the indicator molecules that reached the photodetector comprises means for subtracting the second determined amount of light from the first determined amount of light.

16. The optical sensor of claim 13, further comprising a transmitter for transmitting a signal to a sensor reader, wherein the signal contains information about the amount of light reaching the

photodetector at a point in time when the indicator molecules are illuminated by the light source.

17. The optical sensor of claim 13, further comprising means for activating the light source by driving the light source with about 2 milliamps of current.

18. The optical sensor of claim 13, wherein the means for determining the amount of light reaching the photodetector comprises means for obtaining a signal output from the photodetector.

19. The optical sensor of claim 13, further comprising a housing for housing said determining means, said photodetector and said light source.

20. The optical sensor of claim 19, wherein the indicator molecules are disposed on an outer surface of the housing.

21. An optical sensor, comprising:

indicator molecules;

a photodetector system;

a light source for illuminating the indicator molecules;

means for capturing a first signal output from the photodetector system while the indicator molecules are in a fluorescent state, wherein said first signal is a function of the intensity of the light striking a

photosensitive surface or surfaces of the photodetector system; and

means for capturing a second signal output from the photodetector system while the indicator molecules are not being illuminated, wherein said second signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the photodetector system.

22. The optical sensor of claim 21, further comprising means for generating a third signal, wherein the third signal is a function of the first and second signal.

23. The optical sensor of claim 22, wherein the means for generating the third signal comprises means for subtracting the second signal from the first signal.

24. The optical sensor of claim 21, further comprising a transmitter for transmitting the first and second signal to a sensor reader.

25. The optical sensor of claim 21, further comprising a housing for housing said determining means, said photodetector and said light source.

26. The optical sensor of claim 25, wherein the indicator molecules are disposed on an outer surface of the housing.

27. The optical sensor of claim 21, further comprising means for activating the light source by driving the light source with about 2 milliamps of current.

28. A sensor, comprising:

a housing;

a circuit board housed within the housing, the circuit board having a hole created there through and defining a passageway from a top surface of the circuit board to a bottom surface of the circuit board;

at least one photodetector mounted to the bottom surface of the circuit board, the at least one photodetector having a light sensitive surface, said light sensitive surface being positioned so that light traveling through said passageway can strike said light sensitive surface.

29. The sensor of claim 28, wherein the circuit board is constructed from a material that does not propagate stray light.

30. The sensor of claim 28, wherein the circuit board comprises ferrite.

31. The sensor of claim 28, further comprising an optical filter, wherein at least a portion of said optical filter is disposed within said passageway.

32. The sensor of claim 31, wherein the optical filter is a high pass filter.

33. The sensor of claim 31, further comprising a second optical filter disposed in series with the first optical filter.

34. The sensor of claim 33, wherein the second optical filter is a NIR filter.

35. The sensor of claim 28, further comprising a light source mounted to the top surface of the circuit board.

36. The sensor of claim 28, further comprising a light blocking material disposed to prevent light from striking one or more sides of said at least one photodetector.

37. The sensor of claim 36, wherein the light blocking material comprises a black epoxy.

38. The sensor of claim 28, further comprising a plurality of indicator molecules mounted on an outer surface of the housing.

39. The sensor of claim 38, wherein the indicator molecules are contained within a polymer matrix layer that is disposed on the outer surface of

the housing.

40. The sensor of claim 39, wherein the polymer matrix layer is highly porous.

41. The sensor of claim 38, further comprising a light source housed within said housing for illuminating the indicator molecules.

42. The sensor of claim 41, wherein the light source is mounted on the top surface of the circuit board.

43. The sensor of claim 41, further comprising:

means for capturing a first signal output from the at least one photodetector while the indicator molecules are in a fluorescent state, wherein said first signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the at least one photodetector; and

means for capturing a second signal output from the at least one photodetector while the indicator molecules are not being illuminated, wherein said second signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the at least one photodetector.

44. The sensor of claim 43, further comprising means for generating a third signal, wherein the third signal is a function of the first and second signal.

45. The sensor of claim 44, wherein the means for generating the third signal comprises means for subtracting the second signal from the first signal.

46. The sensor of claim 43, further comprising a transmitter for transmitting the first and second signal to a sensor reader.

47. The sensor of claim 43, further comprising means for activating a light source by driving the light source with about 2 milliamps of current.

48. A sensor, comprising:

a housing;

a ferrite circuit board housed within the housing;

at least one photodetector mounted on the circuit board;

a light source housed within the housing;

a transmitter housed within the housing; and

a plurality of indicator molecules disposed on an outer surface of the housing.

49. The sensor of claim 48, wherein the circuit board has a hole defining a passageway from a top surface of the circuit board to a bottom surface of the circuit board.

50. The sensor of claim 49, wherein the at least

one photodetector is mounted to the bottom surface of the circuit board, the at least one photodetector having a light sensitive surface, said light sensitive surface being positioned so that light traveling through said passageway can strike said light sensitive surface.

51. The sensor of claim 50, further comprising an optical filter, wherein at least a portion of said optical filter is disposed within said passageway.

52. The sensor of claim 51, wherein the optical filter is a high pass filter.

53. The sensor of claim 51, further comprising a second optical filter disposed in series with the first optical filter.

54. The sensor of claim 53, wherein the second optical filter is a NIR filter.

55. The sensor of claim 50, wherein the light source is mounted on a top surface of the circuit board.

56. The sensor of claim 48, further comprising a light blocking material disposed to prevent light from striking one or more sides of said at least one photodetector.

57. The sensor of claim 56, wherein the light blocking material comprises a black epoxy.

58. The sensor of claim 48, wherein the indicator molecules are contained within a polymer matrix layer that is disposed on the outer surface of the housing.

59. The sensor of claim 58, wherein the polymer matrix layer is highly porous.

60. The sensor of claim 48, further comprising:

means for capturing a first signal output from the at least one photodetector while the indicator molecules are in a fluorescent state, wherein said first signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the at least one photodetector; and

means for capturing a second signal output from the at least one photodetector while the indicator molecules are not being illuminated, wherein said second signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the at least one photodetector.

61. The sensor of claim 60, further comprising means for generating a third signal, wherein the third signal is a function of the first and second signal.

62. The sensor of claim 61, wherein the means

for generating the third signal comprises means for subtracting the second signal from the first signal.

63. The sensor of claim 60, further comprising a transmitter for transmitting the first and second signal to a sensor reader.

64. The sensor of claim 60, further comprising means for activating a light source by driving the light source with about 2 milliamps of current.

65. A sensor, comprising:

a housing;

at least one photodetector housed within the housing;

a light source housed within the housing;

a transmitter housed within the housing; and

a plurality of indicator molecules contained within a polymer matrix layer that is disposed on an outer surface of the housing, wherein the polymer matrix layer is highly porous.

66. The sensor of claim 65, further comprising a circuit board housed within the housing, wherein the at least one photodetector is mounted on the circuit board.

67. The sensor of claim 66, wherein the circuit board is a ferrite circuit board.

68. The sensor of claim 66, wherein the circuit board has a hole defining a passageway from a top surface of the circuit board to a bottom surface of the circuit board, and the photodetector has at least one photosensitive surface that is positioned so that light traveling through said passageway can strike said light sensitive surface.

69. The sensor of claim 68, further comprising an optical filter, wherein at least a portion of said optical filter is disposed within said passageway.

70. The sensor of claim 69, wherein the optical filter is a high pass filter.

71. The sensor of claim 69, further comprising a second optical filter disposed in series with the first optical filter.

72. The sensor of claim 71, wherein the second optical filter is a NIR filter.

73. The sensor of claim 68, wherein the light source is mounted on the top surface of the circuit board and the at least one photodetector is mounted on the bottom surface of the circuit board.

74. The sensor of claim 65, further comprising a light blocking material disposed to prevent light from striking one or more sides of said at least one

photodetector.

75. The sensor of claim 74, wherein the light blocking material comprises a black epoxy.

76. The sensor of claim 65, further comprising:

means for capturing a first signal output from the at least one photodetector while the indicator molecules are in a fluorescent state, wherein said first signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the at least one photodetector; and

means for capturing a second signal output from the at least one photodetector while the indicator molecules are not being illuminated, wherein said second signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the at least one photodetector.

77. The sensor of claim 76, further comprising means for generating a third signal, wherein the third signal is a function of the first and second signal.

78. The sensor of claim 76, wherein the means for generating the third signal comprises means for subtracting the second signal from the first signal.

79. The sensor of claim 76, further comprising a transmitter for transmitting the first and second signal to a sensor reader.

80. The sensor of claim 76, further comprising means for activating a light source by driving the light source with about 2 milliamps of current.

81. A sensor reader, comprising:

a receiver for receiving a wireless signal transmitted from a sensor;

a user interface for displaying information to a user of the sensor reader, wherein the information is related to information contained within said wireless signal; and

a photodetector for detecting the intensity of ambient light.

82. The sensor reader of claim 81, further comprising a housing for housing the receiver, user interface and photodetector.

83. The sensor reader of claim 82, further comprising an opaque wrist band, wherein the housing is attached to the opaque wrist band.

84. The sensor reader of claim 81, further comprising a processor in communication with the receiver, photodetector and user interface.

85. The sensor reader of claim 84, wherein the processor is programmed to receive from the photodetector data corresponding to the intensity of

said ambient light and is further programmed to issue an alert to the user if the data corresponding to the intensity of said ambient light indicates that the intensity is greater than a pre-determined threshold.

86. The sensor reader of claim 84, wherein the processor is programmed to (a) receive from the photodetector data corresponding to the intensity of said ambient light, (b) receive from the receiver data transmitted from the sensor, (c) compute a value that is based on the data received from the photodetector and the data received from the receiver; and (d) display the value on the user interface.

87. In a sensor reader having a photodetector, a receiver for receiving a signal from an optical sensor, and a user interface for receiving input from a user of the sensor reader and for providing the user with information, a method, comprising:

determining the intensity of ambient light;

determining whether the intensity of the ambient light is greater than a predetermined threshold intensity; and

issuing a warning to the user if it is determined that the intensity of the ambient light is greater than the predetermined threshold intensity.

88. The method of claim 87, further comprising activating the sensor if it is determined that the intensity of the ambient light is less than the

predetermined threshold intensity.

89. The method of claim 88, further comprising receiving a signal transmitted from the optical sensor, wherein the signal contains information relating to an analyte.

90. The method of claim 89, further comprising using information contained in the signal and the determined intensity of the ambient light to compute a value relating to the analyte.

91. The method of claim 89, further comprising outputting information to the user via the user interface, wherein the outputted information is a function of the information contained in the signal received from the optical sensor.

92. The method of claim 89, wherein the signal is transmitted wirelessly.

93. A sensor reader, comprising:

a photodetector;

a receiver for receiving a signal from an optical sensor;

a user interface for receiving input from a user of the sensor reader and for providing the user with information:

means for determining the intensity of ambient light;

means for determining whether the intensity of the ambient light is greater than a predetermined threshold intensity; and

means for issuing a warning to the user if it is determined that the intensity of the ambient light is greater than the predetermined threshold intensity.

94. The sensor reader of claim 93, further comprising means for activating the sensor in response to the determining means determining that the intensity of the ambient light is less than the predetermined threshold intensity.

95. The sensor reader of claim 94, wherein, after the sensor is activated, the receiver receives a signal transmitted from the optical sensor, wherein the signal contains information relating to an analyte.

96. The sensor reader of claim 95, further comprising means for using information contained in the signal and the determined intensity of the ambient light to compute a value relating to the analyte.

97. The sensor reader of claim 95, further comprising means for outputting information to the user via the user interface, wherein the outputted information is a function of the information contained in the signal received from the optical sensor.

98. The sensor reader of claim 95, wherein the signal is transmitted wirelessly.

99. The sensor reader of claim 93, further comprising a housing for housing the receiver, user interface and photodetector.

100. The sensor reader of claim 99, further comprising an opaque wrist band, wherein the housing is attached to the opaque wrist band.